PATENT CLAIMS

1. A method for transmitting binary data at a rate of R bits per second via a dispersive optical conductor (3) of length d between a transmitter (1) and a receiver (2), where

a) the transmitter (1) comprises a light source (11) which produces optical pulses with a transmission pulse width τ,

b) the pulses are passed through the optical conductor (3) to the receiver (2) and in the process are broadened by a value $\Delta\tau$ as a consequence of the optical conductor (3) having a dispersive characteristic,

c) the receiver comprises a light detector, in which the optical pulses arrive with a reception pulse width $\tau+\Delta\tau$,

characterized in that

d) the transmission pulse width τ is less than one bit period 1/R, and the reception pulse width $\tau+\Delta\tau$ is approximately equal to one bit period 1/R.

2. The method as claimed in claim 1, characterized in that the transmission pulse width τ is selected as a function of the transmission distance d.

3. The method as claimed in claim 1, characterized in that a sequence of pulses at the receiver (2) at least approximately represents an NRZ signal.

4. The method as claimed in claim 1, characterized in that the distance d is more than 500 km.

5. The method as claimed in claim 1, characterized in that said method is used for synchronous data transmission.